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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/812,402 | 03/29/2004 | Yoji Taniguchi | 1324.70198 | 1711 |
| 24978 | 7590 | 09/20/2005 | EXAMINER | |
| GREER, BURNS & CRAIN 300 S WACKER DR 25TH FLOOR CHICAGO, IL 60606 | | | WANG, GEORGE Y | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2871 | |

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/812,402 | TANIGUCHI ET AL. | |
| | Examiner | Art Unit | |
| | George Y. Wang | 2871 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

(1) the specifics of the method for producing an LCD comprising the step of polymerizing the polymerizable component by irradiating the liquid crystal with light prescribed luminance at a prescribed temperature for a prescribed time under application of a prescribed voltage and where the voltage, temperature, luminance, and irradiation time is controlled as a parameter to obtain prescribed optical characteristics comprising a first embodiment corresponding to claims 1-5 and 9-11;

(2) the specifics of the method for producing an LCD comprising the step of sealing a liquid crystal containing a polymerizable component with heat or light in a first concentration, a polymerization initiator in a second concentration, and a polymerization inhibitor in a third concentration, respectively, and where the first to third concentrations is controlled as a parameter to obtain desired optical characteristics comprising a second embodiment corresponding to claims 6-8;

(3) the specifics of the method for producing an LCD comprising the step of polymerizing the polymerizable component under application of a prescribed voltage so as to control a pretilt angle and tilt direction where the voltage is varied in each color of a color filter layer comprising a third embodiment corresponding to claim 12;

(4) the specifics of the method for producing an LCD comprising the step of polymerizing the polymerizable component by irradiating the liquid crystal under application of a prescribed voltage so as to control a pretilt angle and tilt direction where the light is radiated by scanning a surface of the substrate using a linear light source comprising a first embodiment corresponding to claim 13;

(5) the specifics of the method for producing an LCD comprising the steps of holding a liquid crystal composition, measuring a value indicating optical characteristics, and subjecting the polymerizable component to photopolymerization or thermal polymerization under application of a voltage comprising a fifth embodiment corresponding to claim 14;

(6) the specifics of the method for producing an LCD comprising the steps of holding a liquid crystal composition, measuring a value indicating optical characteristics, and subjecting the polymerizable component to photopolymerization or thermal polymerization under application of a voltage and to additional light irradiation or heat application based on the measured values comprising a sixth embodiment corresponding to claim 15;

(7) the specifics of the method for producing an LCD comprising the steps of holding a liquid crystal composition, subjecting the polymerizable component to photopolymerization or thermal polymerization under application of a voltage, and measuring a value indicating optical characteristics after polymerization to evaluate polymerization in a desired state comprising a seventh embodiment corresponding to claim 16;

(8) the specifics of the method for producing an LCD comprising the steps of holding a liquid crystal composition, subjecting the polymerizable component to photopolymerization or thermal polymerization under application of a voltage, and measuring a value indicating optical characteristics during polymerization comprising an eighth embodiment corresponding to claim 17;

(9) the specifics of the method for producing an LCD comprising the steps of holding a liquid crystal composition, removing electrostatic charge of the LC panel, and subjecting the polymerizable component to photopolymerization or thermal polymerization under application of a voltage comprising a ninth embodiment corresponding to claim 18;

(10) the specifics of the method for producing an LCD comprising the steps of holding a liquid crystal composition, irradiating the LC panel with light having a longer wavelength than that on polymerization, and subjecting the polymerizable component to photopolymerization or thermal polymerization under application of a voltage comprising a tenth embodiment corresponding to claim 19;

(11) the specifics of the method for producing an LCD comprising the steps of subjecting a substrate or pair of substrate attached to each other to irradiation of light or heat, holding a liquid crystal composition, and subjecting the polymerizable component to photopolymerization or thermal polymerization under application of a voltage comprising an eleventh embodiment corresponding to claim 20.

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2. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

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3. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Y. Wang whose telephone number is 571-272-2304. The examiner can normally be reached on M-F, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gw
September 8, 2005


ROBERT KIM
SUPERVISORY PATENT EXAMINER